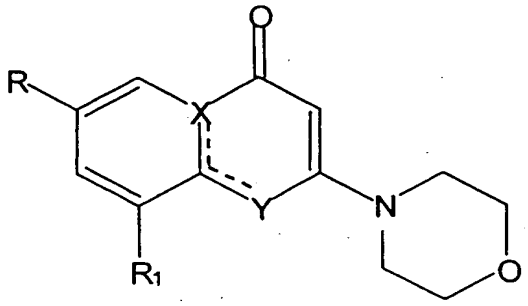
Claims

1. A method of disrupting platelet aggregation and adhesion occurring under high shear conditions comprising administering an effective amount of a selective PI 3-kinase β inhibitor to a patient in need thereof.

2. (Amended) A method for antithrombosis comprising administering an effective amount of a selective PI 3-kinase β inhibitor to a patient in need thereof,



provided that the inhibitor is not according to formula (II):

(II)

wherein,

where X and Y are C and O respectively, or C and NH respectively, or both N

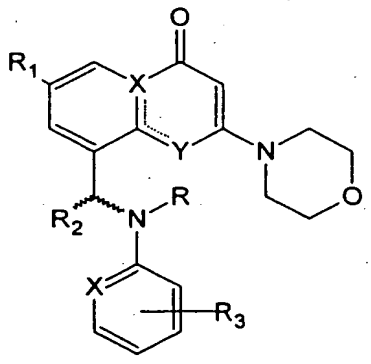
R is H, OH, F, Cl, Br, I, C_1-C_6 alkyl, aryl or $(CH_2)_n$-aryl;

R^1 is H, OH, F, Cl, Br, I, C_1-C_6 alkyl, C_3-C_6 cycloalkyl, CH=CH-aryl, C≡C-aryl, $(CHR^3)_n$-aryl, NR^3-C_1-C_6 alkyl, NR^3-cycloalkyl, NR^3-$(CHR^3)_n$-aryl, $(CHR^3)_n$-NR^3-alkyl, $(CHR^3)_n$-NR^3-cycloalkyl, $(CHR^3)_n$-O-aryl, $(CHR^3)_n$-O-alkyl, $(CHR^3)_n$-O-cycloalkyl, O-$(CHR^3)_n$-aryl, S-$(CHR^3)_n$-aryl, or CO-aryl, wherein n is 0, 1, or 2 and alkyl, cycloalkyl or aryl is optionally substituted with F, Cl, Br, I, CN, CO_2H, CO_2R^3, NO_2, CF_3, substituted or unsubstituted C_1-C_6 alkyl, substituted or unsubstituted cycloalkyl, substituted or unsubstituted aryl, OCF_3, OR^3, OSO_2-aryl, substituted or unsubstituted amine, $NHCOR^3$, $NHSO_2R^3$, $CONHR^3$, or SO_2NHR^3; and

R^3 is H, or substituted or unsubstituted C_1-C_6 alkyl, substituted or unsubstituted aryl;

except where the compound of formula (II) is selected from the group consisting of:
9-(3-pyridinylmethyl)oxy-2-morpholinyl-4H-pyrido[1,2-a]pyrimidin-4-one (TGX-140);
7-methyl-9-phenylaminomethyl-2-morpholinyl-4H-pyrido[1,2-a]pyrimidin-4-one (TGX-183);
8-(4-methylphenl)2-)4-morpholinyl)-4(1H)-quinolinone (TGX-113);
8-(4-fluorophenoxy)-2-(4-morpholinyl)-4(1H)-quinolinone (TGX-121);
2-morpholinyl-8-(phenylmethyl)-4H-1-benzopyran-4-one (TGX-90);
2-(4-morpholinyl)-8-(4-fluoro-2-methylphenyl)oxy-4H-1-benzopyran-4-one (TGX-184);
7-methyl-9-(*N*-Methyl-*N*-phenyl)aminomethyl-2-(4-morpholinyl)-4H-pyrido[1,2-a]pyrimidin-4-one (TGX-195);
2-(4-morpholinyl)-8-(phenylmethyl)amino-4H-1-benzopyran-4-one (TGX-204);
2-(4-morpholinyl)-8-phenylamino-4H-1-benzopyran-4-one (TGX-324);
8-(3-chlorophenyl)oxy-2-(4-morpholinyl)-4H-1-benzopyran-4-one (TGX-259);
8-(3-methylphenyl)-2-(4-morpholinyl)-4(1H)-quinolinone (TGX-127);
8-(2-fluorophenyl)-2-(4-morpholinyl)-4(1H)-quinolinone (TGX-143);
(±)-7-methyl-2-morpholin-4-yl-9-[1-(3-pyridinylamino)ethyl]-pyrido[1,2-a]pyrimidin-4-one (KN-304).

3. The method of claim 2, wherein the selective PI 3-kinase β inhibitor is according to formula (I):



(I)

wherein,

R is H, C_1-C_6 branched or straight chain alkyl, or aryl or $(CH_2)_n$-aryl;

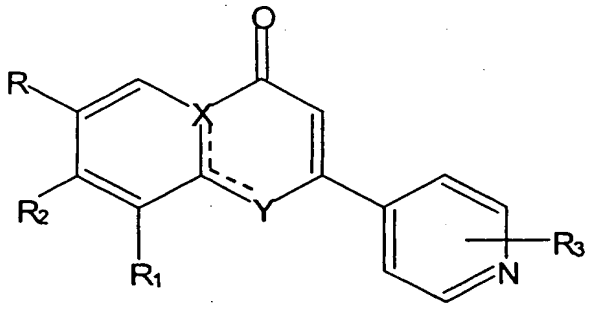
R_1 is H, OH, OCH_3, OCF_3, F, Cl, CF_3, C_1-C_6 branched or straight chain alkyl, or aryl or $(CH_2)_n$-aryl;

R_2 is C_1-C_6 branched or straight chain alkyl, or aryl or $(CH_2)_n$-aryl in either the R or the S configuration

R_3 is one or more of H, F, Cl, Br, I, CN, CO_2H, CO_2R, NO_2, CF_3, substituted or unsubstituted C_1-C_6 alkyl, substituted or unsubstituted cycloalkyl, substituted or unsubstituted aryl, OCH_3, OCH_2F, $OCHF_2$, OCF_3, OR, OSO_2-aryl, substituted or unsubstituted amine, NHCOR, $NHSO_2R$, CONHR, or SO_2NHR

X is C or N and Y is N or O.

4. (Amended) The method of claim 2, wherein the selective PI 3-kinase β inhibitor is according to formula (III):



(III)

(A) where X and Y are C and O respectively

R is H, OH, OCH_3, OCF_3, F, Cl, Br, I, C_1-C_6 alkyl, aryl or $(CH_2)_n$-aryl;

R_1 is H, OH, F, Cl, Br, I, C_1-C_6 alkyl, C_3-C_6 cycloalkyl, CH=CH-aryl, C≡C-aryl, $(CHR'^3)_n$-aryl, NR'^3-C_1-C_6 alkyl, NR'^3-cycloalkyl, NR'^3-$(CHR'^3)_n$-aryl, $(CHR'^3)_n$-NR'^3-aryl, $(CHR'^3)_n$-NR'^3-alkyl, $(CHR'^3)_n$-NR'^3-cycloalkyl, $(CHR'^3)_n$-O-aryl, $(CHR'^3)_n$-O-cycloalkyl, O-

$(CHR'^3)_n$-aryl, S-$(CHR'^3)_n$-aryl, or CO-aryl, wherein n is 0,1, or 2, $(CHR'^3)_m$-O-alkyl wherein m is 1 or 2, and cycloalkyl or aryl is optionally substituted with F, Cl, Br, I, CN, CO_2H, $CO_2R'^3$, NO_2, CF_3, substituted or unsubstituted C_1-C_6 alkyl, substituted or unsubstituted cycloalkyl, substituted or unsubstituted aryl, OCF_3, OR'^3, OSO_2-aryl, substituted or unsubstituted amine, $NHCOR'^3$, $NHSO_2R'^3$, $CONHR'^3$, or $SO_2NHR'^3$ and alkyl is optionally substituted with F, Cl, Br, I, CN, NO_2, CF_3, substituted or unsubstituted C_1-C_6 alkyl, substituted or unsubstituted cycloalkyl, substituted or unsubstituted aryl, OCF_3, OSO_2-aryl, substituted or unsubstituted amine, $NHCOR'^3$, $NHSO_2R'^3$, $CONHR'^3$, or $SO_2NHR'^3$;

R_2 and R_3 are independently H, OH, F, Cl, Br, I, C_1-C_6 alkyl, C_3-C_6 cycloalkyl, CH=CH-aryl, C≡C-aryl, $(CHR'^3)_n$-aryl, NR'^3-C_1-C_6 alkyl, NR'^3-cycloalkyl, NR'^3-$(CHR'^3)_n$-aryl, $(CHR'^3)_n$-NR'^3-aryl, $(CHR'^3)_n$-NR'^3-alkyl, $(CHR'^3)_n$-NR'^3-cycloalkyl, $(CHR'^3)_n$-O-aryl, $(CHR'^3)_n$-O-alkyl, $(CHR'^3)_n$-O-cycloalkyl, O-$(CHR'^3)_n$-aryl, S-$(CHR'^3)_n$-aryl, or CO-aryl, wherein n is 0,1, or 2 and alkyl, cycloalkyl or aryl is optionally substituted with F, Cl, Br, I, CN, CO_2H, $CO_2R'^3$, NO_2, CF_3, substituted or unsubstituted C_1-C_6 alkyl, substituted or unsubstituted cycloalkyl, substituted or unsubstituted aryl, OCF_3, OR'^3, OSO_2-aryl, substituted or unsubstituted amine, $NHCOR'^3$, $NHSO_2R'^3$, $CONHR'^3$, or $SO_2NHR'^3$; and

R'^3 is H, or substituted or unsubstituted C_1-C_6 alkyl, substituted or unsubstituted aryl or

(B) where X and Y are C and NH respectively

R is H, OH, OCH_3, OCF_3, F, Cl, Br, I, C_1-C_6 alkyl, aryl or $(CH_2)_n$-aryl;

R_1, R_2 and R_3 are independently H, OH, F, Cl, Br, I, C_1-C_6 alkyl, C_3-C_6 cycloalkyl, CH=CH-aryl, C≡C-aryl, $(CHR'^3)_n$-aryl, NR'^3-C_1-C_6 alkyl, NR'^3-cycloalkyl, NR'^3-$(CHR'^3)_n$-aryl, $(CHR'^3)_n$-NR'^3-aryl, $(CHR'^3)_n$-NR'^3-alkyl, $(CHR'^3)_n$-NR'^3-cycloalkyl, $(CHR'^3)_n$-O-aryl, $(CHR'^3)_n$-O-alkyl, $(CHR'^3)_n$-O-cycloalkyl, O-$(CHR'^3)_n$-aryl, S-$(CHR'^3)_n$-aryl, or CO-aryl, wherein n is 0,1, or 2 and alkyl, cycloalkyl or aryl is optionally substituted with F, Cl, Br, I, CN, CO_2H, $CO_2R'^3$, NO_2, CF_3, substituted or unsubstituted C_1-C_6 alkyl, substituted or unsubstituted cycloalkyl, substituted or unsubstituted aryl, OCF_3, OR'^3, OSO_2-aryl, substituted or unsubstituted amine, $NHCOR'^3$, $NHSO_2R'^3$, $CONHR'^3$, or $SO_2NHR'^3$; and

R'^3 is H, or substituted or unsubstituted C_1-C_6 alkyl, substituted or unsubstituted aryl or

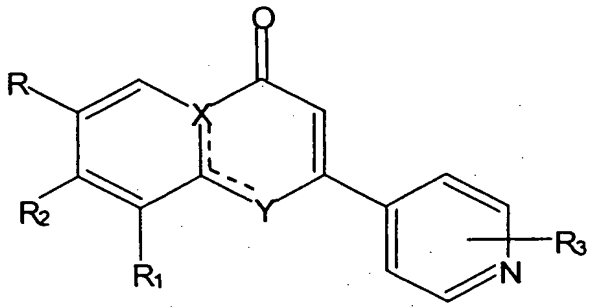
(C) where X and Y are both N

R is H, OH, OCH_3, OCF_3, F, Cl, Br, I, C_1-C_6 alkyl, aryl or $(CH_2)_n$-aryl;

R_1, R_2 and R_3 are independently H, OH, F, Cl, Br, I, C_1-C_6 alkyl, C_3-C_6 cycloalkyl, CH=CH-aryl, C≡C-aryl, $(CHR'^3)_n$-aryl, NR'^3-C_1-C_6 alkyl, NR'^3-cycloalkyl, NR'^3-$(CHR'^3)_n$-aryl, $(CHR'^3)_n$-NR'^3-aryl, $(CHR'^3)_n$-NR'^3-alkyl, $(CHR'^3)_n$-NR'^3-cycloalkyl, $(CHR'^3)_n$-O-aryl, $(CHR'^3)_n$-O-alkyl, $(CHR'^3)_n$-O-cycloalkyl, O-$(CHR'^3)_n$-aryl, S-$(CHR'^3)_n$-aryl, or CO-aryl, wherein n is 0,1, or 2 and alkyl, cycloalkyl or aryl is optionally substituted with F, Cl, Br, I, CN, CO_2H, $CO_2R'^3$, NO_2, CF_3, substituted or unsubstituted C_1-C_6 alkyl, substituted or unsubstituted cycloalkyl, substituted or unsubstituted aryl, OCF_3, OR'^3, OSO_2-aryl, substituted or unsubstituted amine, $NHCOR'^3$, $NHSO_2R'^3$, $CONHR'^3$, or $SO_2NHR'^3$; and

R'^3 is H, or substituted or unsubstituted C_1-C_6 alkyl, substituted or unsubstituted aryl.

5. (Amended) A compound having the following formula (III):



(III)

(A) where X and Y are C and O respectively

R is H, OH, OCH_3, OCF_3, F, Cl, Br, I, C_1-C_6 alkyl, aryl or $(CH_2)_n$-aryl;

R_1, is OH, F, Br, I, C_1-C_6 alkyl, C_3-C_6 cycloalkyl, CH=CH-aryl, C≡C-aryl, $(CHR'^3)_n$-aryl, NR'^3-C_1-C_6 alkyl, NR'^3-cycloalkyl, NR'^3-$(CHR'^3)_n$-aryl, $(CHR'^3)_n$-NR'^3-aryl, $(CHR'^3)_n$-NR'^3-alkyl, $(CHR'^3)_n$-NR'^3-cycloalkyl, $(CHR'^3)_n$-O-aryl, $(CHR'^3)_n$-O-cycloalkyl, O-$(CHR'^3)_n$-aryl, S-$(CHR'^3)_n$-aryl, or CO-aryl, wherein n is 0,1, or 2, $(CHR'^3)_m$-O-alkyl wherein m is 1 or 2, and cycloalkyl or aryl is optionally substituted with F, Cl, Br, I, CN, CO_2H, $CO_2R'^3$, NO_2, CF_3, substituted or unsubstituted C_1-C_6 alkyl, substituted or unsubstituted cycloalkyl, substituted or unsubstituted aryl, OCF_3, OR'^3, OSO_2-aryl, substituted or unsubstituted amine, $NHCOR'^3$, $NHSO_2R'^3$, $CONHR'^3$, or $SO_2NHR'^3$ and alkyl is optionally substituted with F, Cl, Br, I, CN, NO_2, CF_3, substituted or unsubstituted C_1-C_6 alkyl, substituted or unsubstituted cycloalkyl, substituted or unsubstituted aryl, OCF_3, OSO_2-aryl, substituted or unsubstituted amine, $NHCOR'^3$, $NHSO_2R'^3$, $CONHR'^3$, or $SO_2NHR'^3$;

R_2 and R_3 are independently H, OH, F, Cl, Br, I, C_1-C_6 alkyl, C_3-C_6 cycloalkyl, CH=CH-aryl, C≡C-aryl, $(CHR'^3)_n$-aryl, NR'^3-C_1-C_6 alkyl, NR'^3-cycloalkyl, NR'^3-$(CHR'^3)_n$-aryl, $(CHR'^3)_n$-NR'^3-aryl, $(CHR'^3)_n$-NR'^3-alkyl, $(CHR'^3)_n$-NR'^3-cycloalkyl, $(CHR'^3)_n$-O-aryl, $(CHR'^3)_n$-O-alkyl, $(CHR'^3)_n$-O-cycloalkyl, O-$(CHR'^3)_n$-aryl, S-$(CHR'^3)_n$-aryl, or CO-aryl, wherein n is 0,1, or 2 and alkyl, cycloalkyl or aryl is optionally substituted with F, Cl, Br, I, CN, CO_2H, $CO_2R'^3$, NO_2, CF_3, substituted or unsubstituted C_1-C_6 alkyl, substituted or unsubstituted cycloalkyl, substituted or unsubstituted aryl, OCF_3, OR'^3, OSO_2-aryl, substituted or unsubstituted amine, $NHCOR'^3$, $NHSO_2R'^3$, $CONHR'^3$, or $SO_2NHR'^3$; and

R'^3 is H, or substituted or unsubstituted C_1-C_6 alkyl, substituted or unsubstituted aryl; or

(B) where X and Y are C and NH respectively,

R is H, OH, OCH_3, OCF_3, F, Cl, Br, I, C_1-C_6 alkyl, aryl or $(CH_2)_n$-aryl;

R_1, is OH, F, Cl, Br, I, C_1-C_6 alkyl, C_3-C_6 cycloalkyl, CH=CH-aryl, C≡C-aryl, $(CHR'^3)_n$-aryl, NR'^3-C_1-C_6 alkyl, NR'^3-cycloalkyl, NR'^3-$(CHR'^3)_n$-aryl, $(CHR'^3)_n$-NR'^3-aryl, $(CHR'^3)_n$-NR'^3-alkyl, $(CHR'^3)_n$-NR'^3-cycloalkyl, $(CHR'^3)_n$-O-aryl, $(CHR'^3)_n$-O-alkyl, $(CHR'^3)_n$-O-cycloalkyl, O-$(CHR'^3)_n$-aryl, S-$(CHR'^3)_n$-aryl, or CO-aryl, wherein n is 0,1, or 2 and alkyl, cycloalkyl or aryl is optionally substituted with F, Cl, Br, I, CN, CO_2H, $CO_2R'^3$, NO_2, CF_3, substituted or unsubstituted C_1-C_6 alkyl, substituted or unsubstituted cycloalkyl, substituted or

unsubstituted aryl, OCF_3, OR'^3, OSO_2-aryl, substituted or unsubstituted amine, $NHCOR'^3$, $NHSO_2R'^3$, $CONHR'^3$, or $SO_2NHR'^3$;

R_2 and R_3 are independently H, OH, F, Cl, Br, I, C_1-C_6 alkyl, C_3-C_6 cycloalkyl, CH=CH-aryl, C≡C-aryl, $(CHR'^3)_n$-aryl, NR'^3-C_1-C_6 alkyl, NR'^3-cycloalkyl, NR'^3-$(CHR'^3)_n$-aryl, $(CHR'^3)_n$-NR'^3-aryl, $(CHR'^3)_n$-NR'^3-alkyl, $(CHR'^3)_n$-NR'^3-cycloalkyl, $(CHR'^3)_n$-O-aryl, $(CHR'^3)_n$-O-alkyl, $(CHR'^3)_n$-O-cycloalkyl, O-$(CHR'^3)_n$-aryl, S-$(CHR'^3)_n$-aryl, or CO-aryl, wherein n is 0,1, or 2 and alkyl, cycloalkyl or aryl is optionally substituted with F, Cl, Br, I, CN, CO_2H, $CO_2R'^3$, NO_2, CF_3, substituted or unsubstituted C_1-C_6 alkyl, substituted or unsubstituted cycloalkyl, substituted or unsubstituted aryl, OCF_3, OR'^3, OSO_2-aryl, substituted or unsubstituted amine, $NHCOR'^3$, $NHSO_2R'^3$, $CONHR'^3$, or $SO_2NHR'^3$; and

R'^3 is H, or substituted or unsubstituted C_1-C_6 alkyl, substituted or unsubstituted aryl or

(C) where X and Y are both N

R is H, OH, OCH_3, OCF_3, F, Cl, Br, I, C_1-C_6 alkyl, aryl or $(CH_2)_n$-aryl;

R_1 is OH, F, Cl, Br, I, C_1-C_6 alkyl, C_3-C_6 cycloalkyl, CH=CH-aryl, C≡C-aryl, $(CHR'^3)_n$-aryl, NR'^3-C_1-C_6 alkyl, NR'^3-cycloalkyl, NR'^3-$(CHR'^3)_n$-aryl, $(CHR'^3)_n$-NR'^3-aryl, $(CHR'^3)_n$-NR'^3-alkyl, $(CHR'^3)_n$-NR'^3-cycloalkyl, $(CHR'^3)_n$-O-aryl, $(CHR'^3)_n$-O-alkyl, $(CHR'^3)_n$-O-cycloalkyl, O-$(CHR'^3)_n$-aryl, S-$(CHR'^3)_n$-aryl, or CO-aryl, wherein n is 0,1, or 2 and alkyl, cycloalkyl or aryl is optionally substituted with F, Cl, Br, I, CN, CO_2H, $CO_2R'^3$, NO_2, CF_3, substituted or unsubstituted C_1-C_6 alkyl, substituted or unsubstituted cycloalkyl, substituted or unsubstituted aryl, OCF_3, OR'^3, OSO_2-aryl, substituted or unsubstituted amine, $NHCOR'^3$, $NHSO_2R'^3$, $CONHR'^3$, or $SO_2NHR'^3$;

R_2 and R_3 are independently H, OH, F, Cl, Br, I, C_1-C_6 alkyl, C_3-C_6 cycloalkyl, CH=CH-aryl, C≡C-aryl, $(CHR'^3)_n$-aryl, NR'^3-C_1-C_6 alkyl, NR'^3-cycloalkyl, NR'^3-$(CHR'^3)_n$-aryl, $(CHR'^3)_n$-NR'^3-aryl, $(CHR'^3)_n$-NR'^3-alkyl, $(CHR'^3)_n$-NR'^3-cycloalkyl, $(CHR'^3)_n$-O-aryl, $(CHR'^3)_n$-O-alkyl, $(CHR'^3)_n$-O-cycloalkyl, O-$(CHR'^3)_n$-aryl, S-$(CHR'^3)_n$-aryl, or CO-aryl, wherein n is 0,1, or 2 and alkyl, cycloalkyl or aryl is optionally substituted with F, Cl, Br, I, CN, CO_2H, $CO_2R'^3$, NO_2, CF_3, substituted or unsubstituted C_1-C_6 alkyl, substituted or unsubstituted

cycloalkyl, substituted or unsubstituted aryl, OCF_3, OR'^3, OSO_2-aryl, substituted or unsubstituted amine, $NHCOR'^3$, $NHSO_2R'^3$, $CONHR'^3$, or $SO_2NHR'^3$; and

R'^3 is H, or substituted or unsubstituted C_1-C_6 alkyl, substituted or unsubstituted aryl.

6. The method of claim 2, comprising administering the 2-morpholino-substituted derivative of formula (I) wherein:

R is H, C_1-C_6 branched or straight chain alkyl or aryl;

R_1 is H, OH, OCH_3, OCF_3, F, Cl, CF_3, C_1-C_6 branched or straight chain alkyl;

R_2 is C_1-C_6 branched or straight chain alkyl, or aryl in either the R or the S configuration

R_3 is one or more of H, F, Cl, Br, CN, CO_2H, CO_2R, NO_2, CF_3, branched or straight chain C_1-C_6 alkyl, substituted or unsubstituted cycloalkyl, substituted or unsubstituted aryl, OCH_3, OCH_2F, $OCHF_2$, OCF_3, OR, substituted or unsubstituted amine, NHCOR, $NHSO_2R$, CONHR, or SO_2NHR

X is C or N and Y is N or O.

7. The method of claim 2, wherein the inhibitor administered is selected from the group consisting of:

(±)-7-methyl-9-{[methyl(phenyl)amino]methyl}-2-morpholin-4-yl-pyrido[1,2-a]pyrimidin-4-one (TGX-195);

(±)-7-methyl-2-morpholin-4-yl-9-(1-phenylaminoethyl)-pyrido[1,2-a]pyrimidin-4-one (TGX-221);

(±)-7-methyl-2-morpholin-4-yl-9-[1-(4-fluorophenylamino)ethyl]-pyrido[1,2-a]pyrimidin-4-one (TGX-224);

(±)-9-[1-(3,4-difluorophenylamino)ethyl]-7-methyl-2-morpholin-4-yl-pyrido[1,2-a]pyrimidin-4-one (TGX-237);

(±)-9-[1-(2,5-difluorophenylamino)ethyl]-7-methyl-2-morpholin-4-yl-pyrido[1,2-a]pyrimidin-4-one (TGX-238);

(±)-9-[1-(3,5-difluorophenylamino)ethyl]-7-methyl-2-morpholin-4-yl-pyrido[1,2-a]pyrimidin-4-one (TGX-239);

(±)-9-[1-(4-fluoro-2-methylphenylamino)ethyl]-7-methyl-2-morpholin-4-yl-pyrido[1,2-a]pyrimidin-4-one (TGX-240);

(±)-9-[1-(4-chlorophenylamino)ethyl]-7-methyl-2-morpholin-4-yl-pyrido[1,2-a]pyrimidin-4-one (TGX-243);

(±)-9-[1-(3,4-dichlorophenylamino)ethyl]-7-methyl-2-morpholin-4-yl-pyrido[1,2-a]pyrimidin-4-one (TGX-244);

(±)-9-[1-(3fluorophenylamino)ethyl]-7-methyl-2-morpholin-4-yl-pyrido[1,2-a]pyrimidin-4-one (TGX-247);

(±)-9-[1-(3-chlorophenylamino)ethyl]-7-methyl-2-morpholin-4-yl-pyrido[1,2-a]pyrimidin-4-one (TGX-248);

(±)-7-methyl-2-morpholin-4-yl-9-[1-(2-thiazolylamino)ethyl]-pyrido[1,2-a]pyrimidin-4-one (TGX-261);

(±)-7-methyl-9-[1-(3-methylphenylamino)ethyl]-2-morpholin-4-yl-pyrido[1,2-a]pyrimidin-4-one (TGX-262);

(±)-7-methyl-2-morpholin-4-yl-9-[1-(3-trifluoromethylphenylamino)ethyl]-pyrido[1,2-a]pyrimidin-4-one (TGX-264); and

(±)-7-methyl-2-morpholin-4-yl-9-[1-(2-pyridinylamino)ethyl]-pyrido[1,2-a]pyrimidin-4-one (TGX-295).

(±)-2-({1-[7-methyl-2-(morpholin4-yl)-4-oxo-pyrido[1,2-a]pyrimidin-9-yl]ethyl} amino)benzoic acid (KN-309);

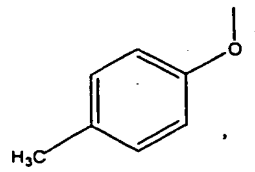
(±) methyl 2-({1-[7-methyl-2-(morpholin-4-yl)-4-oxo-pyrido[1,2-a]pyrimidin-9-yl]ethyl}amino)benzoate (KN-321);

(±)-2-({1-[7-methyl-2-(morpholi-4-yl)-4-oxo-pyrido[1,2-a]pyrimidin-9-yl]ethyl}amino)benzonitrile (KN-320);

(±)-7-methyl-2-(morpholin-4-yl)-9-(1-{[2-(2*H*-tetrazol-5-yl)phenyl]amino}ethyl)-pyrido[1,2-a]pyrimid-4-one (KN-325);

(±)-2-(4-morpholinyl)-8[1-(phenylamino)ethyl]-4H-1-benzopyran-4-one (TGX-280).

8. The compound of claim 5, wherein R^1 is selected from a group consisting of, CH_3, C_2H_5,



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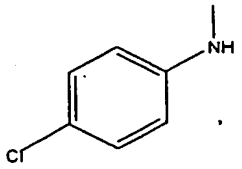

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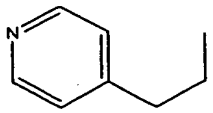

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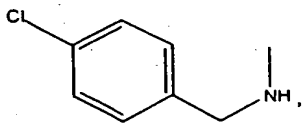

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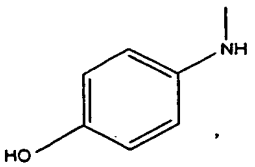

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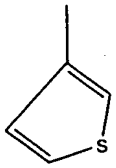

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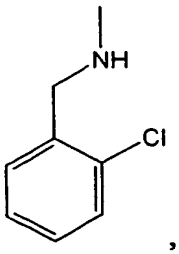

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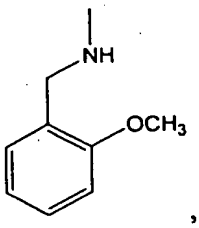

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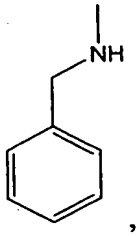

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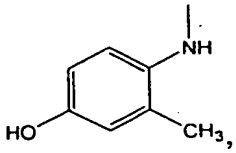

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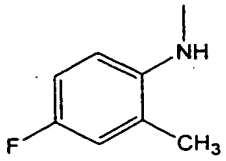
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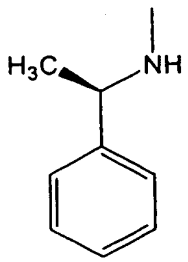
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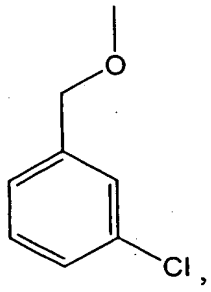
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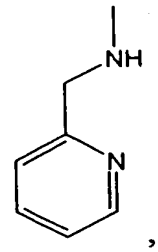
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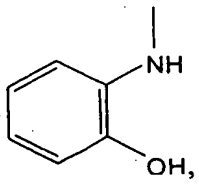
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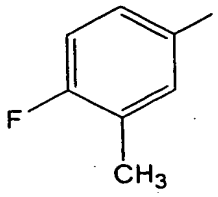
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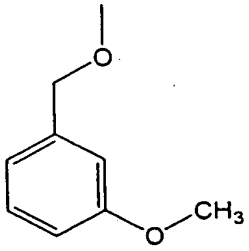
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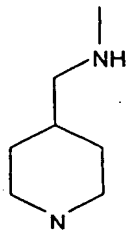
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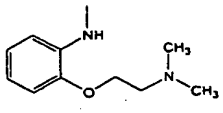
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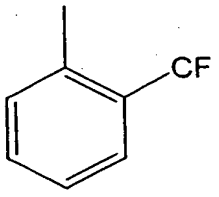
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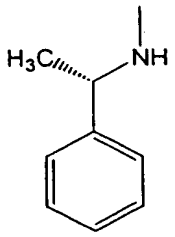
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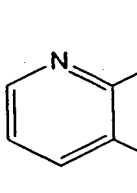
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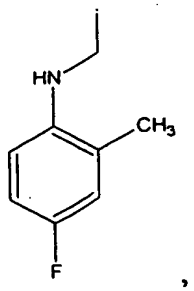
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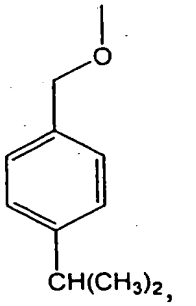
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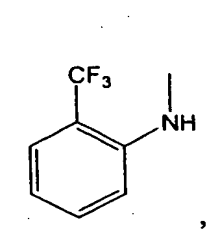
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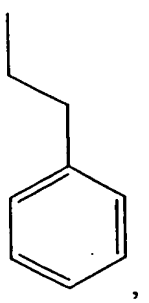
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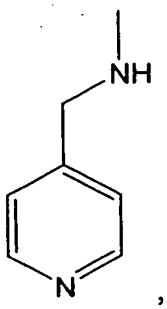
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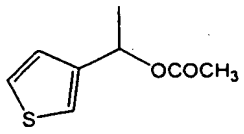
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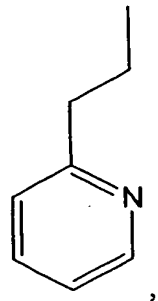
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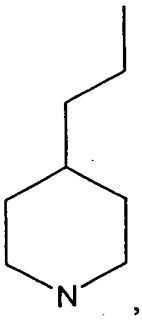
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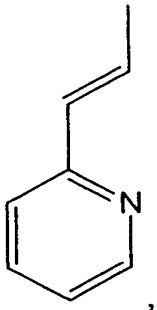
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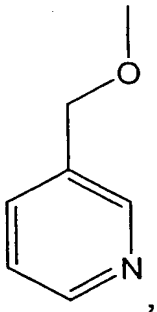
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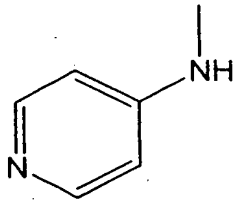
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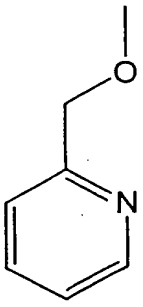
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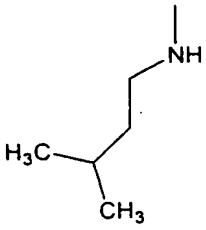
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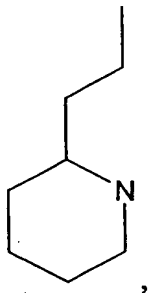
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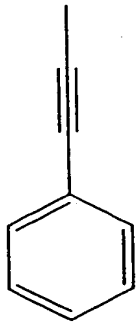
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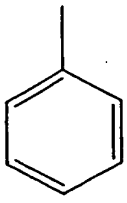
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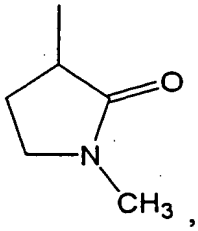
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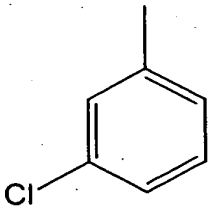
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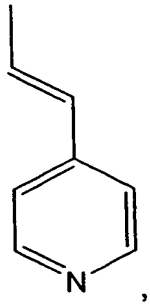
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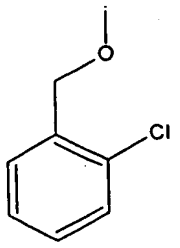
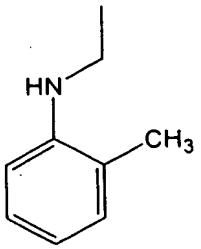
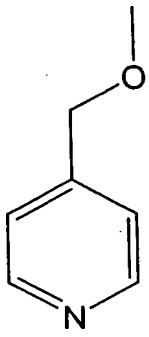
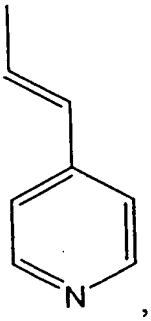
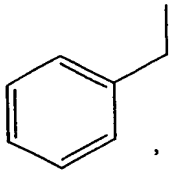
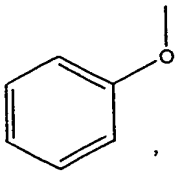
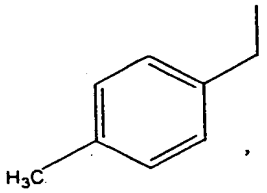
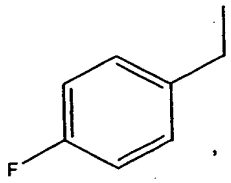
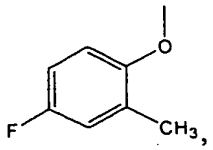
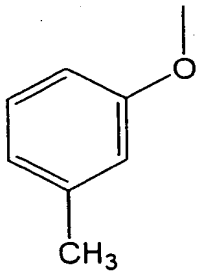
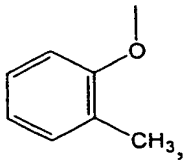
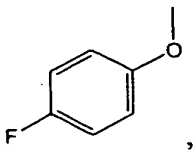
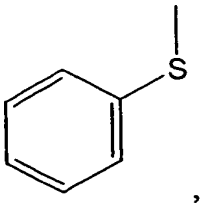
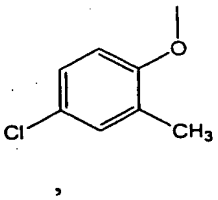
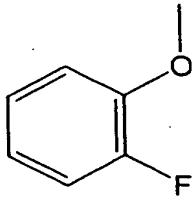
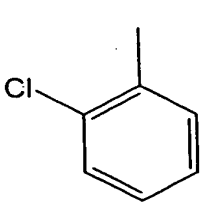

AMENDED SHEET
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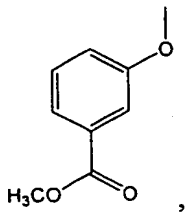
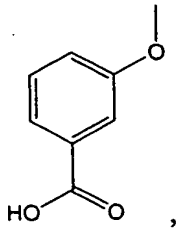
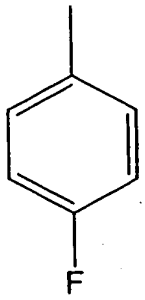
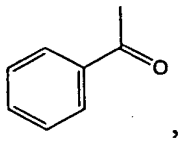
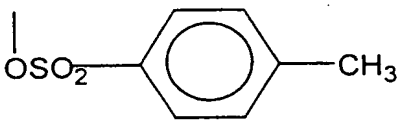
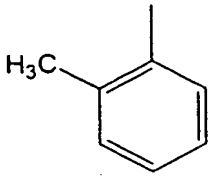
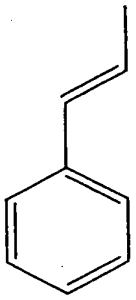
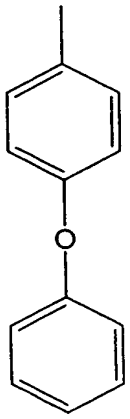
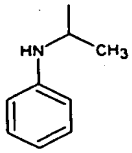
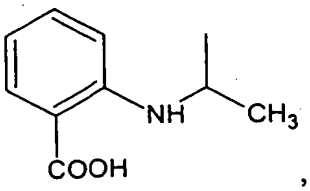
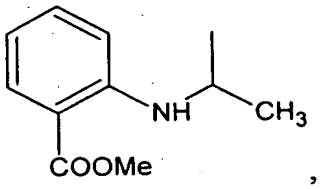
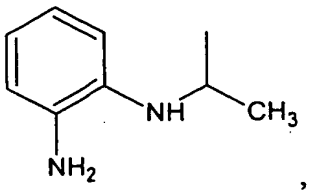
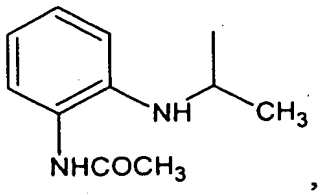
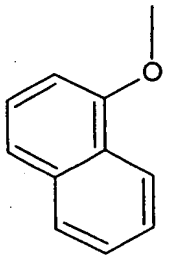
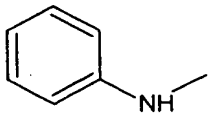
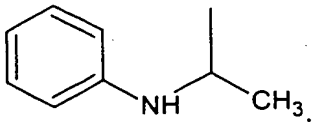














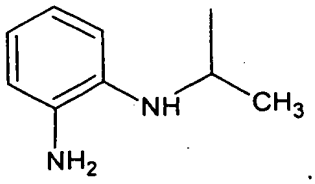




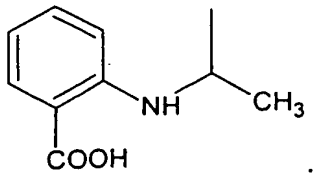
9. The compound of claim 5, wherein R is methyl and R^1 is



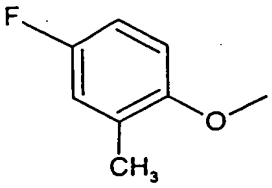
10. The compound of claim 5, wherein R is methyl and R^1 is



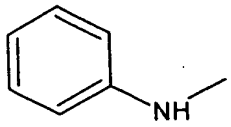
11. The compound of claim 5, wherein R is methyl and R^1 is



12. The compound of claim 5, wherein R is H and R^1 is



13. The compound of claim 5, wherein R is H and R^1 is



14. A method for inhibiting phosphoinositide 3-kinase in a patient, comprising administering to a patient an amount of the compound of claim 5 effective in inhibiting the phosphoinositide 3-kinase in the patient.

15. A method for preventing or treating cardiovascular disease comprising administering an effective amount of the compound of claim 5 to a patient in need thereof.

16. A method for preventing or treating respiratory disease comprising administering an effective amount of the compound of claim 5 to a patient in need thereof.

17. A method for preventing or treating cancer comprising administering an effective amount of the compound of claim 5 to a patient in need thereof.

18. A method for preventing or treating disease linked to disordered white blood cell function comprising administering an effective amount of the compound of claim 5 to a patient in need thereof.

19. (Deleted).

19. (Renumbered) The method of claim 4, wherein the inhibitor administered is 6-methyl-8-[1-(phenylamino)ethyl]-2-(4-pyridinyl)-4*H*-benzopyran-4-one.

20. (Renumbered) The method of claim 4, wherein the inhibitor administered is 6-methyl-8-{1-[(2-aminophenyl)amino]ethyl}-2-(4-pyridinyl)-4*H*-benzopyran-4-one.

21. (Renumbered) A compound which is (±)-7-methyl-2-morpholin-4-yl-9-(1-phenylaminoethyl)-pyrido[1,2-a]pyrimidin-4-one.

22. (Renumbered) A compound which is (±)-2-({1-[7-methyl-2-(morpholin4-yl)-4-oxo-pyrido[1,2-a]pyrimidin-9-yl]ethyl} amino)benzoic acid.

23. (Renumbered) A compound which is (±)-2-({1-[7-methyl-2-(morpholin-4-yl)-4-oxo-pyrido[1,2-a]pyrimidin-9-yl]ethyl}amino)benzonitrile.

24. (Renumbered) A compound which is (±) methyl 2-({1-[7-methyl-2-(morpholin-4-yl)-4-oxo-pyrido[1,2-a]pyrimidin-9-yl]ethyl}amino)benzoate.

25. (Renumbered) A compound which is (±)-7-methyl-2-(morpholin-4-yl)-9-(1-{[2-(2*H*-tetrazol-5-yl)phenyl]amino}ethyl)-pyrido[1,2-a]pyrimid-4-one.